

# CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP) PROTOCOL

PROVIDER NAME: \_\_\_\_\_ PROVIDER NO. \_\_\_\_\_

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Continuous Positive Airway Pressure has been shown to rapidly improve vital signs, gas exchange, reduce the work of breathing, decrease the sense of dyspnea, and decrease the need for endotracheal intubation in patients who suffer from shortness of breath from asthma, COPD, pulmonary edema, CHF, and pneumonia. In patients with CHF, CPAP improves hemodynamics by reducing left ventricular preload and afterload.

## I. INDICATIONS

- A. Any patient who is in respiratory distress with signs and symptoms consistent with asthma, COPD, pulmonary edema, CHF, or pneumonia **and** who is
  - 1) awake and able to follow commands
  - 2) is over 12 years old and is able to fit the CPAP mask
  - 3) has the ability to maintain an open airway
  - 4) **And** exhibits two or more of the following;
    - 1. a respiratory rate greater than 25 breaths per minute
    - 2. SPO2 of less than 94% at any time
    - 3. use of accessory muscles during respirations

## II. CONTRAINDICATIONS

- A. Patient is in respiratory arrest/apneic
- B. Patient is suspected of having a pneumothorax or has suffered trauma to the chest
- C. Patient has a tracheostomy
- D. Patient is actively vomiting or has upper GI bleeding

## III. PROCEDURE

- A. EXPLAIN THE PROCEDURE TO THE PATIENT
- B. Ensure adequate oxygen supply to ventilation device
- C. Place the patient on continuous pulse oximetry
- D. Place the patient on cardiac monitor (if available) and record rhythm strips with vital signs
- E. Place the delivery device over the mouth and nose
- F. Secure the mask with provided straps or other provided devices
- G. Use 5 cm H2O of PEEP valve
- H. Check for air leaks
- I. Monitor and document the patient's respiratory response to treatment
- J. Check and document vital signs every 5 minutes.
- K. Administer appropriate medication as certified (continuous nebulized Albuterol for COPD/Asthma and repeated administration of nitroglycerin spray or tablets for CHF)
- L. Continue to coach patient to keep mask in place and readjust as needed
- M. Contact medical control to advise them of CPAP initiation
- N. Request ALS intercept if available

- O. If respiratory status deteriorates, remove device and consider intermittent positive pressure ventilation via BVM and/or placement of non-visualized airway or endotracheal intubation.

#### **IV. REMOVAL PROCEDURE**

- A. CPAP therapy needs to be continuous and should not be removed unless the patient can not tolerate the mask or experiences respiratory arrest or begins to vomit.
- B. Intermittent positive pressure ventilation with a Bag-Valve-Mask, placement of a non-visualized airway and/or endotracheal intubation should be considered if the patient is removed from CPAP therapy.

#### **V. SPECIAL NOTES**

- A. Do not remove CPAP until hospital therapy is ready to be placed on patient.
- B. Watch patient for gastric distention, which can result in vomiting.
- C. Procedure may be performed on patient with Do Not Resuscitate Order.
- D. Due to changes in preload and afterload of the heart during CPAP therapy, a complete set of vital signs must be obtained every 5 minutes.

Approved by: \_\_\_\_\_ Medical Director (Print)  
\_\_\_\_\_ Medical Director Signature  
\_\_\_\_\_ Date